

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-18 (cancelled).

19. (Currently Amended) Method for producing a ceramic coating ~~of-on~~ metallic and/or ceramic surfaces and products in reactors, process plants and combustion plants, characterized in that a mixture of fine-particle boron nitride, at least one inorganic binding agent of medium particle size in the nanometer range, ~~containing substantially~~selected from the group consisting of Al_2O_3 , $\text{AlO}(\text{OH})$, ZrO_2 , Y-ZrO_2 , TiO_2 , SiO_2 , Fe_2O_3 ~~and-SnO₂ or-and~~ an associated precursor compound and at least one solvent and/or water is applied onto the metallic and/or ceramic surfaces or the product, and the applied mixture is ~~burn~~burned into a coating through heating during operation of the reactors process plants and combustion plants.

20. (Previously Presented) Method according to claim 19 characterized in that the surfaces of metallic pipe walls, ceramic pipe wall plates, stones and lining substances in reactors, process plants and combustion plants are provided with the coating.

21. (Previously Presented) Method according to claim 20, characterized in that the surfaces of parts of waste incinerators are provided with the coating.

22. (Currently Amended) Method ~~according to claim 19,~~
for producing a ceramic coating of metallic and/or ceramic

surfaces and products in reactors, process plants and combustion plants characterized in that ~~an~~ a mixture of fine-particle boron nitride, at least one organo-metallic compound, ~~is~~ used as inorganic binding agent, and at least one solvent and/or water is applied onto the metallic and/or ceramic surfaces or the product, and the applied mixture is burned into a coating through heating.

23. (Currently Amended) Method according to claim 19, characterized in that the inorganic binding agent has an average particle size of ~~<100nm, preferably <50nm, in particular <20nm~~ less than 100 nm.

24. (Currently Amended) Method according to claim 19, characterized in that the solvent ~~contains substantially is~~ selected from the group consisting of ethanol, 1-propanol, 2-propanol, 2-butoxyethanol ~~and/or~~ and water.

25. (Previously Presented) Method according to claim 24, characterized in that the solvent contains a mixture of ethanol, 2-butoxyethanol and water.

26. (Cancelled)

27. (Currently Amended) Method according to claim 19, characterized in that burning-in of the applied mixture is carried out before ~~operation~~ operational start of the reactor, process plant or combustion plant through heating to at least 400°C.

28. (Currently Amended) Method for repairing a ceramic coating of metallic and/or ceramic surfaces and

products in reactors, process plants and combustion plants, characterized in that a damaged coating is repaired through partial or complete application of the coating on the damaged coating in accordance with claim ~~4~~19.

29. (Previously Presented) Method according to claim 19, characterized in that the mixture is applied through rinsing, rolling, immersion and/or flooding.

Claims 30-33 (cancelled).